

U.S. Serial No. 09/814,693

NIT-272

REMARKS

The Applicants request reconsideration of the rejection.

Claims 1-23 are now pending.

The Examiner objected to the drawing, requiring Figures 1 and 2 to be labeled "Prior Art". A Transmittal of Formal Drawings and a replacement sheet for Figures 1 and 2 accompany this Reply to make the required change.

The Examiner also objected to Claim 11 to being a substantial duplicate of Claim 5. The dependency of Claim 11 has been changed, rendering the claim dependent from Claim 6, thereby avoiding the objection.

Claim 7 was rejected under 35 USC §112, second paragraph, as containing an objectionable term ("the highest transmittance"). Although the rejection apparently was intended to be directed to Claim 12, the Applicants nevertheless traverse the rejection, noting that the "highest transmittance" is set forth as being the highest transmittance "among said plurality of light transmission portions provided by the etalon." Thus, a standard for ascertaining the requisite degree is indeed present, such that one of ordinary skill in the art is reasonably apprised of the scope of the invention.

U.S. Serial No. 09/814,693

NIT-272

Claim 1 was rejected under 35 USC §102(b) as being anticipated by Hori, U.S. 4,821,273 (Hori). The Applicants, however, traverse this rejection, noting that Hori does not disclose an etalon having two or more transmission bands, as required by amended Claim 1. In fact, Hori does not disclose any wavelength selection means having two or more transmission bands, such that original Claim 1 also patentably defines over Hori. However, the Applicants have amended Claim 1 to strengthen this important feature of the invention, while noting that Hori's optical element 38 has only a single transmission band. Moreover, the Applicants note that column 12, lines 23-26 of Hori teach that the optical element 38 has a function which is quite "almost similar" to an etalon "without using a large-sized wavelength reference such as etalon plate". Thus, Hori teaches away from the invention as now claimed.

Claims 1, 3-4, 6, 8-9, 12 and 14-15 were rejected under 35 USC §102(b) as being anticipated by Tei et al., U.S. 6,144,025.

Tei is similar to the background art described in the present specification and shown in Figure 1 of the present application. Further, like Hori, Tei's optical band pass filter 8 is not a wavelength selection means or etalon having

U.S. Serial No. 09/814,693

NIT-272

two or more transmission bands, as required by the original and amended independent claims, respectively. Instead, Tei's band pass filter 8 has a specific transmission wavelength band. See column 3, line 66 through column 4, line 2.

In addition, Tei positively teaches that an etalon is not suitable in the laser light source apparatus disclosed in the patent. Note column 1, lines 26-55:

Up to now... an apparatus for stabilizing the wavelength ... by dither, using [apparatus such as a] Fabry Perot interferometer have been known. ... It is also known to stabilize the emission wavelength of a laser light source by using multilayer interference optical filter or an etalon as reference wavelength."

In such conventional methods, however, the light of the light source such as a laser diode is modulated by changing the emission wavelength by giving a delicate change to the light source by the dither...To eliminate such effects of the dither, a low pass filter or an electric filter is indispensable. Besides, the control system is complicated because of the dither, and if the dither is accompanied by movable parts, the reliability is low and the light is shortened."

Thus, Tei employs the band pass filter 8 in preference to an etalon.

In this regard, the Applicants note the alternative embodiment in which Tei teaches that an interference optical filter 30 can be used instead of the optical band pass filter 8. The interference optical filter 30 is constructed so as to

U.S. Serial No. 09/814,693

NIT-272

permit the transmitting wavelength of incident light to change. However, in use, this "tunable" interference optical filter is, at any given time, a filter having one transmission band in violation of the claims. Therefore, Tei does not teach the etalon (wavelength selection means) having two or more transmission bands required by the claims.

Claim 2, 7 and 13 were rejected under 35 USC §103(a) as being unpatentable over Tei in view of Miller et al. U.S. 4,790,634. Claims 5, 11 and 17 were rejected under 35 USC §103(a) as being unpatentable over Tei in view of Watterson et al. U.S. 6,526,079. Because neither Miller nor Watterson provides the teachings missing from Tei (i.e., an etalon having two or more transmission bands in the optical-fiber communication equipment of the claims), the combination of either of the references with Tei necessarily does not render obvious the claimed invention.

Claims 1 and 4 were rejected under 35 USC §102(b) as being anticipated by Volz et al., U.S. 6,501,773 (Volz), and Claims 10 and 16 were rejected under 35 USC §103(a) as being unpatentable over Tei in view of Volz. Volz, however, is not prior art to the present invention, as indicated by the effective U.S. filing date of Volz and the foreign priority date enjoyed by the present application. To perfect this

U.S. Serial No. 09/814,693

NIT-272

claim to foreign priority benefits under 35 USC §119, an accurate translation of the Japanese priority application is enclosed, accompanied by the verification of the translator. The Applicants thus request of the rejections involving Volz.

Accompanying this Reply is a copy of an explanation of the "etalon" and its characteristics from Principles of Optics, for the Examiner's convenience.

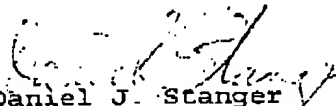
In closing, the Applicants' representative thanks the Examiner and his supervisor for the courtesies extended during the office interview of July 30, 2004. The above amendments and remarks were drafted as a result of the discussion that took place during the interview. Should the Examiner have any questions concerning this Reply, the Applicants' representative invites him to telephone at the number below.

U.S. Serial No. 09/814,693

NIT-272

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claim.

Respectfully submitted,


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on August 5, 2004, by Debbie Labing?